

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for reporting channel quality information (CQI) for representing channel quality by a subscriber station in a mobile communication system, comprising:

a) receiving uplink radio resource allocation information for transmitting uplink data from a base station;

b) determining whether a channel quality information indicator is included in the allocation information, the channel quality information indicator representing a channel quality information report;

c) generating the CQI ~~channel quality information~~ by measuring a radio channel for communicating with the base station, when the channel quality information indicator is included in the allocation information; and

d) including the CQI ~~channel quality information~~ to the uplink data and transmitting the uplink data to the base station through a radio resource corresponding to the allocation information for the uplink data, without requesting resource allocation to transmit the CQI,

wherein the uplink data includes data to be transmitted, and a header having information for the data and the subscriber station, and wherein the uplink data is transmitted by adding a subheader including the CQI to the header of the uplink data.

2. (Original) The method for reporting the channel quality information by the subscriber station of claim 1, wherein the channel quality information indicator is a piggyback indicator.

3. (Cancelled)

4. (Currently Amended) The method for reporting the channel quality information by the subscriber station of claim 1 ~~claim 3~~, wherein the subheader including the channel quality information is added in advance to residual subheaders when a plurality of subheaders is added to the header of the uplink data.

5. (Previously Presented) The method for reporting the channel quality information by the subscriber station of claim 1, wherein the allocation information includes the channel quality information indicator, and the radio channel quality is measured to generate the channel quality information when the CQI indicator is set to a predetermined value for a request of the CQI, in step (c).

6. (Currently Amended) A method for reporting channel quality information for representing channel quality by a subscriber station in a mobile communication system, comprising:

a) allocating an uplink radio resource to the subscriber station having data to be transmitted to an uplink;

b) adding a channel quality information indicator for requesting the channel quality information to uplink radio resource allocation information; and

c) transmitting the uplink radio resource allocation information including the channel quality information indicator to the subscriber station to ,~~and requesting~~ request channel quality information (CQI);

d) receiving uplink data from the subscriber station through the uplink radio resource set according to the uplink radio resource allocation information, wherein the uplink data includes data to be transmitted, a header having information for the data and the subscriber station, and a subheader including CQI;

e) extracting the channel quality information from the uplink data; and

f) allocating downlink radio resource to the subscriber station based on the CQI.

7. (Previously Presented) The method for the reporting channel quality information by the subscriber station of claim 6, wherein the channel quality information indicator is a piggyback indicator, and the channel quality information indicator is set to a predetermined value for a request of the channel quality information indicator in step (b).

8. (Cancelled)

9. (Currently Amended) A method for requesting and reporting channel quality information (CQI) in a mobile communication system wherein a base station and a subscriber station are coupled by a mobile network, comprising:

a) controlling the base station to add a channel quality information indicator for requesting a CQI ~~channel quality information~~ report to an uplink radio resource for the subscriber station having the data to be transmitted to the uplink, and transmitting uplink radio resource allocation information to the subscriber station;

b) controlling the subscriber station to measure radio channel quality according to the channel quality information indicator, and to generate the CQI ~~channel quality information~~; and

c) controlling the subscriber station to include the CQI ~~channel quality information~~ to the uplink data and to transmit the uplink data to the base station through the radio resource according to the allocation information for the uplink data, without requesting resource allocation to transmit the channel quality information,

wherein the uplink data includes data to be transmitted, and a header having information for the data and the subscriber station, and wherein the uplink data is transmitted by adding a subheader including the CQI to the header of the uplink data.

10. (Previously Presented) The method of claim 9, further comprising:

controlling the base station to allocate a downlink radio resource to the subscriber station based on the channel quality information included in the uplink data provided by the subscriber station.

11. (Previously Presented) The method of claim 9, wherein the mobile communication system is a wireless portable internet system.

12. (Currently Amended) A base station apparatus for requesting channel information in a mobile communication system, comprising:

a base station resource controller for including a channel quality information indicator for requesting a channel quality information (CQI) report from uplink radio resource allocation information;

a digital signal transmitter for performing adaptive modulation and coding on the uplink radio resource allocation information to generate digital signals; ~~and~~

an analog signal transmitter for converting the digital signals into analog signals and transmitting the analog signals to subscriber stations; and

allocator for receiving uplink data from the subscriber station through uplink radio resource set according to the uplink radio resource allocation information,

wherein the uplink data includes data to be transmitted, a header having information for the data and the subscriber station, and a subheader including CQI, and for allocating a downlink radio resource to the subscriber station based on the CQI included in uplink data transmitted from the subscriber station according to the channel quality information indicator.

13. (Previously Presented) The base station of claim 12, wherein the base station resource controller includes:

an uplink resource allocator for allocating an uplink radio resource to a subscriber station to generate the uplink radio resource allocation information; and

a channel quality requestor for generating the channel quality information indicator to request channel information from the subscriber station,

wherein the uplink resource allocator transmits the uplink radio resource allocation information provided with the channel quality information indicator to the digital signal transmitter.

14. (Original) The base station of claim 13, further comprising a downlink resource allocator for allocating a downlink radio resource to the subscriber station based on the channel quality information included in uplink data transmitted from the subscriber station according to the channel

quality information indicator.

15. (Currently Amended) A subscriber station for reporting channel quality information (CQI) in a mobile communication system, comprising:

an allocated resource checker for receiving uplink radio resource allocation information from a base station, and checking a radio resource set for the subscriber station by analyzing the allocation information;

a channel quality reporter for generating the CQI channel quality information by measuring channel quality so as to communicate with the base station when the uplink radio resource allocation information includes a channel quality information indicator for requesting channel quality information;

an uplink data generator for generating uplink data to be transmitted to the base station, and adding the CQI channel quality information to the uplink data; and

a transmitter for transmitting the uplink data to the base station through a radio resource confirmed by the allocated resource checker, without requesting resource allocation to transmit the channel quality information,

wherein the uplink data includes data to be transmitted, and a header having information for the data and the subscriber station, and wherein the uplink data is transmitted by adding a subheader including the CQI to the header of the uplink data.

16. (Previously Presented) The subscriber station of claim 15, wherein the uplink data includes data to be transmitted, and a header having information on the data and the subscriber station, and the uplink data generator adds a subheader including the channel quality information to the header of the uplink data.